



## Hurricane Irma/Hurricane Maria 2017 10/14/2017 – 1030 EDT Update

New or Updated Information is Highlighted in this Report

### EXECUTIVE SUMMARY

- The humanitarian crisis – particularly in Puerto Rico – is severe. Residents in more remote areas are still lacking food, water and medicine. Distribution of these supplies has improved as roads have been cleared, but remains a major difficulty.
- There are reports that the incidence of diseases is increasing, including gastro-intestinal problems and conjunctivitis, leptospirosis and other vector-borne diseases.
- Many buildings on the several islands of PR and the USVI sustained serious damage; on St. John, USVI, over 80% of buildings were heavily damaged.
- Power remains out for 85% or more of the residents of PR and USVI. The USVI anticipates restoration of power to 90% of clients by the end of the calendar year; in PR restoration will take months longer. Many office and commercial buildings have generators, as do many private residences; but access to fuel remains difficult. There are reports of thefts of fuel and even generators.
- Drinking water systems have been compromised on all the islands – particularly distribution of finished water. Much of the distribution network relies on electric-powered pump stations and is thus affected by the power outages and lack of fuel for generators. In PR, over 35% of the population is still not receiving drinking water through the utility system. Comparable data for the USVI is not available, but the population is reportedly being provided with adequate supplies of drinking water.
- PR sewage systems were damaged; 33% of the sewage treatment plants are still not operational because of damage to the plants themselves, damage to the trunk lines that bring the sewage to the plants, and/or damage to or lack of electric power at pump stations. Raw sewage discharges are ubiquitous; some discharges enter waterways upstream of drinking water intakes. Residents are using surface waters (rivers, streams, lakes, coastal waters) for washing, potentially exposing them to harmful pathogens from the sewage discharges. EPA, CDC and PR DOH are advising residents not to bathe in surface waters. In the USVI, damage to sewage systems was less severe, but plants do not have primary power, and lack sufficient generators or generator fuel.
- Waste management is a major concern. A large amount of storm-damaged debris is accumulating across all the islands. Debris lines many roads. In PR, there are reports of

unauthorized, clandestine dumps being created in many places.

- Overall command of the federal response is now with the military (Generals Richard Kim & Jeffrey Buchanan). The Army Corps of Engineers (USACE) has been assigned the task of assisting PREPA to rebuild Puerto Rico's infrastructure.
- EPA's major missions on the islands include: assessment of drinking water and sewage systems; oil and chemical spill response; oil and chemical facility assessments; and debris management (particularly hazardous materials, and oversight of possible mass burning of debris). EPA works closely with FEMA, USACE, US Coast Guard (USCG), and other federal and local government authorities.
- Region 2's CEPD Guaynabo office officially opened on 10/2. At times the building is running on power from the utility, but that service occasionally still fails and then generator power is activated. Data and voice services and cell phone service is operating. The CEPD offices in Vieques, PR and St. Thomas, USVI, sustained some minimal damage, and have limited power and water service; these offices remain officially closed until further notice.
- EPA currently has approximately 150 personnel (employees and contractors) in PR and the USVI working on the response. This number includes some CEPD staff who are participating in the response. We plan for that number to increase significantly to over 200 before the end of October, and to about 400 by early December. To date, however, it has been extremely challenging for EPA to move response personnel and equipment to the islands. Access to seats on flights has improved but securing lodging on the islands remains difficult. EPA continues to pursue berthing space on the various FEMA-supported vessels arriving in PR and the USVI.
- Official Commonwealth and Territorial Requests for Assistance
  - Puerto Rico Requests
    - On 9/9 requested to assess oil & hazmat releases, contaminated debris & other environmental events in PR.
    - On 9/28 requested removal, cleanup and disposal of oil & hazmat; collect and dispose of HHW; monitor immediate threats to public H&S and the environment in PR
    - On 9/30 requested to coordinate/execute all necessary assessments, evaluations, sampling and analytical services/support to ensure the safety and quality of drinking water & wastewater.
  - USVI Requests
    - On 9/7 requested to assess oil & hazmat releases, contaminated debris & other environmental events in the VI.
    - On 9/13 requested removal, cleanup and disposal of oil & hazmat; collect and dispose of HHW; monitor immediate threats to public H&S and the environment in the VI.

- EPA has been requested by DPNR/VITEMA and FEMA to add collection and disposal of medical waste as part of our hazardous waste mission. EPA is drafting a Mission Assignment Task Order (MATO) to task this medical waste mission under our existing direct assistance MA.
- On 10/6 Dawn Henry, Director of the USVI DPNR, wrote to R2 requesting assignment of a variety of human resources to assist DPNR; these include an attorney, public affairs specialist, children's health specialist, solid & hazardous wastes specialist, and oil specialist. R2 will evaluate and respond to the request.
- Other Significant Upcoming Events.
  - New York City Marathon, 11/5/17, New York, NY
  - Macy's Thanksgiving Day Parade, 11/24-25/17, New York, NY

## **PUERTO RICO / U.S. VIRGIN ISLANDS CONDITIONS**

### **US Virgin Islands (USVI):**

- State of Emergency declared; National Guard activated.
- **Curfew.** Curfew in place from 8:00 p.m. to 5:00 a.m. in St. Thomas, St. John, and Water Island. St. Croix curfew in place from 8:00 p.m. to 9:00 a.m.
- **Power:**
  - St. Thomas 14.4% are receiving power from the grid
  - St. John: 0% No grid power
  - St. Croix 12% are receiving power from the grid
  - 90% of the USVI to be restored by late December.
- **Cellular Coverage.** USVI:45% cell sites are operational; St. Thomas: 50% cell sites operational; St. John: No cell sites operational; St. Croix: 48% cell sites operational. St. John being serviced by temporary Wi-Fi hot spots and personal MiFi devices.
- **Airports:** St. Thomas and St. Croix: Open and receiving commercial aircraft.
- **Ports:** Six ports open and three ports opened with restrictions. Passenger ferry service available from St. John to Red Hook (7:00 a.m. to 5:30 p.m.)

### **Puerto Rico (PR):**

- **General.**
  - Michael Byrne is the new FEMA Federal Coordinating Officer (FCO) for Puerto Rico. He will be working with FEMA Coordinator for the Caribbean Alejandro de la Campa.

- US House of Representatives Speaker Paul Ryan is travelling today to Puerto Rico with Resident Commissioner Jennifer Gonzalez and members of the House of Representatives' Appropriations Committee. The Speaker will participate in helicopter flight towards the west of Puerto Rico, including the Guajataca Dam.
- US House of Representatives voted in favor of resolution to provide a \$4.9 billion loan to Puerto Rico (\$4.7 billion allocated for PR) and the USVI under FEMA's community disaster loan program. The Governor of Puerto Rico has indicated that this loan will help Puerto Rico's government sustain operations until the end of December. US Senate will vote on this resolution next week.
- US House of Representatives voted in favor of a resolution to allocate \$36.5 billion for FEMA's emergency response funds in areas affected by natural disasters in the US. US Senate will vote on this resolution next week.
- Governor indicates that Hurricane María damages are estimated in \$90 million.
- **PREPA** – PREPA reports that **91%** of their clients are without service. Percentage went up on 10/11 from 85% to 91% because the San Juan Power Plant collapsed and is currently in reparation. Many important facilities have been affected by this collapse, particularly the Luis Munoz Marin International Airport, Centro Médico medical center, PR Police Headquarters, and Plaza Las Americas shopping center, among others.
- **PRASA** – PRASA reports that **37%** of clients are without drinking water service. The La Plata Dam was reenergized and will be able to supply additional drinking water to 140,000 clients in the Metropolitan Area, including municipalities in Bayamon, Toa Baja, and Toa Alta.
- **Telecommunications** – Telecommunications Board reports that **44%** of telecommunications service is still disrupted.
- **Solid Waste Management** – Municipalities continue to report that large amounts of clandestine dumps have been established in their communities. They are concerned with public health and environmental impacts. Construction debris started to be collected as part of FEMA's Debris Mission in the municipality of Toa Baja, one of the main areas affected by floods,
- **Fuel Supply** – **21%** of gasoline stations are not operational. 872 of 1,100 gas stations are currently operational.
- **Airports** – Luis Munoz Marin International Airport has reestablished operations. Currently managing **50** flights per day. Airport had to partially close because of power outage and problems with the airport's radar.
- **Ports** – Port Authority reports that **25%** of ports remain closed. Mayaguez port remains closed as they need to receive a certification of the US Coast Guard.
- **Hospitals** – 44 hospitals have been energized. 72 hospitals are receiving assistance and support in

diesel distribution and generator maintenance. A number of hospitals have had to close and transfer their patients to other hospitals as their generators have broken down. Medical Super Shelters (with capacity for 250 patients) have been established in five locations in Puerto Rico. USNS Comfort (with capacity for 1,000 patients) was transferred to the western part of the island to support medical needs and attend medical patients referred by the PR Department of Health in this region. It will make stops in Arecibo-Manati, Aguadilla, Mayaguez, Yauco-San German, and Ponce.

- **Curfew** – Curfew hours in Puerto Rico are from 12:00 am to 5:00 am.
- **Shelters** – 5,414 residents currently living on government shelters.
- **Disease Outbreaks** – Disease outbreaks have been reported in numerous municipalities (diarrhea, conjunctivitis, etc.). Department of Health confirmed 10 active cases of leptospirosis and the death of two persons due to the disease. EPA also received from HHS an unconfirmed report from a citizen indicating potential malaria and conjunctivitis cases in Villalba, Juana Diaz, and vicinity.
- **Socioeconomic Issues** – Many inland municipalities continue to claim that aid is not reaching their communities, particularly food and water.

## PUBLIC AFFAIRS

The PIO is Janie Acevedo, who can be reached at 469-222-7810. The Assistant PIO for Community Relations is Pat Seppi, who can be reached at 646-369-0068. The Assistant PIO's for Media Relation are Rusty Harris-Bishop, who can be reached at 415-694-8840 and Tayler Covington at 212-637-3662. All press inquiries are being managed through the Office of Public Affairs. Elias Rodriguez is serving as the Field PIO in San Juan and is working the EPA desk at the Sheraton Convention Center with FEMA. Elias will provide on-the-ground support for the R2 RA/DRA visit to Puerto Rico 10/16- 10/18. Elias can be reached at 732-672-5520, but email is more effective due to poor cell service. Wanda Calderon is staffing the FEMA desk, supporting REOC and Field PIO functions and can be reached by email.

A Maria update news release was not issued on October 13, 2017. A CNN report on October 13 has generated a lot of media interest that people are drinking, or may be attempting to drink, water from Superfund sites in Puerto Rico. We are working closely with Operations, the Regional Administrator and the Regional Incident Commander to provide an update on October 14. We continue to provide all Region 2 staff with relevant Maria news clips and EPA news releases. News releases are being translated to Spanish and posted and distributed widely by the PIO.

The response web site [www.epa.gov/hurricane-maria](http://www.epa.gov/hurricane-maria) is being updated daily by the Region 2 PIO and Assistant PIO for Media.

Community Involvement: Bi-lingual Community Involvement Coordinators (CICs) are assisting the assessment teams in Puerto Rico. Natalie Loney is serving as a CIC in St. Thomas and will be supporting the R2 RA/DRA visit to the USVI on 10/19. To guide our outreach efforts in Puerto Rico and the USVI, a Hurricane Maria Community Outreach Plan has been developed.

## OBJECTIVES

## **Region 2 – Hurricane Maria Management Objectives**

- Protect the health and safety of EPA employees.
- Implement the mobilization plan to move needed personnel and equipment to the islands.
- Minimize social, political, and economic adverse impacts.
- Maintain communication and briefing schedule with R2 senior executives and EPA Headquarters. Support a consistent communications approach agency-wide, enabling EPA to act and speak in unison during these incidents.
- Provide situation reports and other information on schedule provided by RIC.
- Provide guidance for length of work day and deployments as it pertains to this specific event.
- Coordinate logistics with deployed personnel to provide transportation options, lodging, security, ground transportation on site.
- Identify clearly defined roles for both Regions and Headquarters.
- Identify long-term recovery objectives the Agency may be requested to support, and determine resources needed to support/sustain those requests to accomplish the objectives.
- Secure NPL and removal sites. Regulated facilities and Superfund and oil sites will be surveyed post storm fall.
- Identify vulnerabilities at regulated facilities.
- Address any immediate hazardous substance releases or oil spills resulting from the storm's impact.
- Assist state and local agencies in ensuring safety of drinking water systems.
- Coordinate with the USACE and FEMA to assist state and local agencies to repair drinking water infrastructure.
- Assist federal, state and local agencies to assess and identify needed repairs to wastewater conveyance and treatment systems.
- Assist federal, state and local agencies in management of debris, including in particular hazardous materials, electronic waste, medical waste, refrigerants, white goods, and oil and chemical wastes; provide guidance and oversight if/when thermal reduction (burning) of wastes is carried out.
- Monitor air quality when/if necessary in response to conditions on the ground.
- Coordinate national resources to assist the Region.
- The response will use the Region's incident specific Data Management Plan (DMP).
- In collecting, sharing, and analyzing environmental data, EPA will give primacy to data with potential human health consequences.
- EPA will work to ensure that its decision-makers have access to the data and expertise they need to make decisions based on sound science.

## **Region 2 - Hurricane Maria Incident Objectives**

- The health and safety of our responders is our highest priority. Develop health and safety messages daily for all field operations;
- Ensure health and safety of the public by conducting environmental assessments and operating in accordance with approved site safety plans;
- Coordinate deployments and field activities with community involvement coordinator and Assistant Safety Officers;

- Continue coordination with OSC deployed to the NRCC in Washington DC on logistics and FEMA Mission Assignments;
- Continue coordination with OSCs deployed at the FEMA Interim Operating Facility in San Juan, PR;
- Continue coordination with OSCs deployed to the EOCs on St. Croix and St. Thomas;
- Coordinate and prioritize the assessment of Hazardous Material and Oil Response sites in Puerto Rico and USVI;
- Coordinate with CEPD, prioritize and perform drinking water and waste water assessment targets in Puerto Rico and the USVI;
- Coordinate, prioritize and perform fixed facility assessments of RMP, FRP and SPCC facilities in Puerto Rico;
- Perform preparation activities for upcoming field deployment of clean-up resources for abandoned containers, household hazardous waste, hazardous debris and hazardous material staging areas in Puerto Rico and USVI;
- Continue consolidating ERRS equipment for FEMA transport to Puerto Rico;
- Coordinate all field activities with CEPD program office staff and FEMA division coordinators. Support CEPD operations that are within the scope of the FEMA Mission Assignments;
- Coordinate with U.S. Army Corps of Engineers (USACE) in support of the collection of household hazardous waste in the USVI;
- Support USCG sunken vessel recovery operations and coordinate operations with ESF10 partner USCG;
- Continue drinking water sampling and facility assessments as coordinated and prioritized with DPRN in the USVI;
- Develop and implement a full staffing plan to increase the response effort to meet the FEMA mission assignments and then for continuous operation in Puerto Rico, USVI and the REOC.

## DEBRIS RECOVERY

### Puerto Rico Debris Mission

- EPA is currently coordinating with the US Army Corp of Engineers in support of EPA's hazardous materials removal operations Mission Assignment. USACE is currently evaluating several locations for debris collection staging areas (see table below). EPA plans to co-locate hazardous material staging areas at all identified staging locations. Until USACE's areas are identified, EPA is coordinating with EQB to establish a temporary hazardous materials staging area.
- The unavailability of equipment or transportation capacity to date has impacted and delayed EPA's efforts to perform the hazardous waste and debris cleanup components of the FEMA mission assignments. Requests for transport of equipment have been made through the proper channels at the NRCC. There have been significant difficulties in scheduling barge space to transport equipment from CONUS. There appears to be progress in this area, however, the barge schedule has not been resolved. The plan is now focused on the equipment leaving from Jacksonville, FL where there are least two barges leaving daily for Puerto Rico. We are pursuing space within that operation to target a departure date of 10/19.
- A staging area at the US Army Garrison - Ft. Buchanan, in Guaynabo, has been secured for the staging of equipment to support EPA's debris MAs. This location will only be used to stage

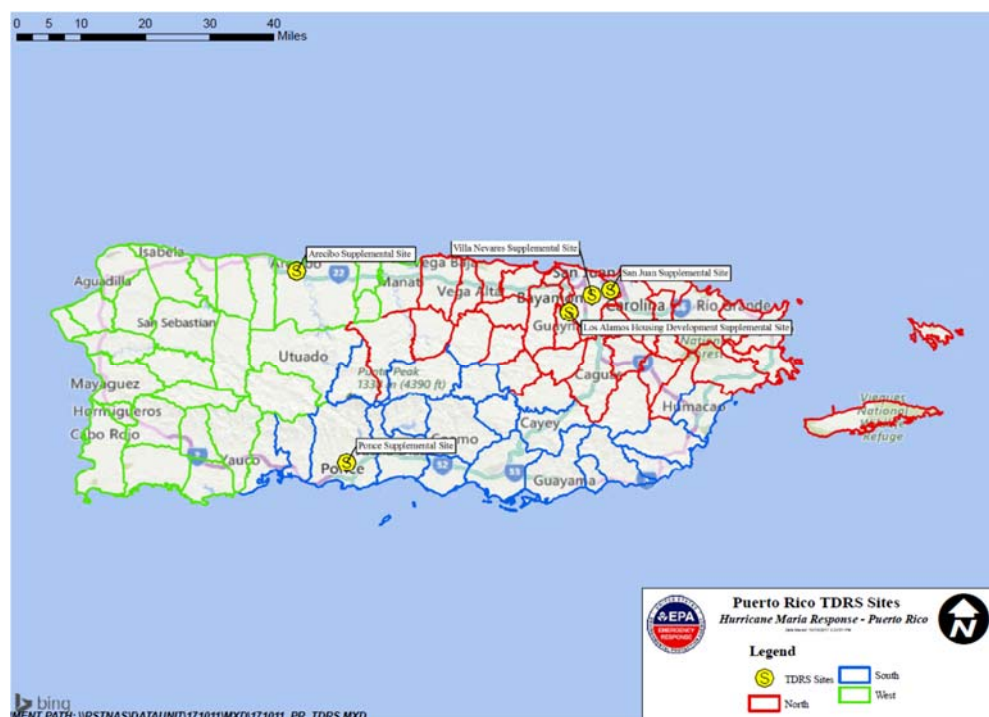


equipment and will not be a hazardous materials staging area.

## Puerto Rico Sites - Under Consideration for Debris Staging

Zone	Site ID	Municipality	GPS Coordinates	Description	Owner	Type Of Site		Proposed Type of Debris to be Managed									
						TDS	LANDFILL	Clean Vegetative Debris	Mixed Debris	MTW	Trees	White Goods	C&D	Mech	Ash	Residues	
1	100	Naguabo	18.21347, -65.72506	Former Industrial Site with over 38.5 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)	X		X									
1	101	Fajardo	18.30971, -65.663130	Old Airport Facility (Unknown Acres)	Land Authority		X		X								
1	102	Vieques	18.149028, -65.416931	Vieques Sanitary Landfill: Existing Landfill Facility in compliance with EQB / EPA Regs (Unknown Acres)	Municipality of Vieques	X				X	X	X					
1	103	Canovanas	18.385917, -65.877508	Former Industrial Site (Unknown Acres)	Puerto Rico Industrial Development Corporation (PRIDCO)	X					X	X	X				X
1	104	Culebra	18.317959, -65.276760	Culebras Site in front of PRASA. Raw Land in front of PRASA Waste Water Treatment Plant with 10 Acres approx.	Puerto Rico Industrial Development Corporation (PRIDCO)		X							X	X	X	
1	105	Humacao	18.128110, -65.806972	El Coqui Landfill: Existing Landfill Facility in compliance with EQB / EPA Regs.	EC Waste LLC	X	X	X	X	X	X	X	X	X	X	X	X
2	106	Toa Baja	18.426793, -66.187961	Old Military Base with over 200 Acres	Sabana Seca Partners					X	X	X					
2	107	Toa Baja	18.423514, -66.111988	Sabana Seca Naval Station: Raw Land with over 100 Acres	Federal Government		X	X	X								
2	108	Bayamon	18.386858, -66.133825	Commercial Site Near Costco: Proposed Mall Site with over 20 Acres	Mora Development		X	X	X								
2	109	Trujillo Alto	18.361946, -65.995524	Las Cuevas Industrial Park: Industrial Site with 8.2 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)		X		X			X	X	X			
2	110	Bayamon	18.359634, -66.140202	Munillas Industrial Subdivision: Former Industrial Site with 2.4 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)		X		X			X	X	X			
3	111	Vega Baja	18.271437, -66.231892	Cabo Caribe Ward Industrial Park: Industrial Site with 10.1 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)		X		X			X	X	X			
3	112	Vega Alta	18.417595, -66.329843	Espinosa Ward: Former Industrial Site with 5.7 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)		X		X			X	X	X			
3	113	Arecibo	18.448506, -65.567500	Santana Ward: Industrial Site with 24.74 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)	X		X	X								
3	114	Arecibo	18.459770, -66.701138	Energy Answer Site: Raw Land with 50 Acres	Energy Answer												
4	115	Mayaguez	18.218616, -67.161086	Mayaguez Foreign Trade Zone: Former Industrial Site with 8.8 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)	X		X	X								
4	116	Aguadilla		Moutada Industrial Area: Former Industrial Site with 12.65 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)		X		X								
5	117	Guaynilla	18.037764, -66.800622	Quebradas Ward: Former Industrial Site with 7.1 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)	X		X	X								
5	118	Ponce	17.984468, -66.672409	Clean Debris (El Tuque): Raw Land with 15 Acres	Cantera El Tuque Inc.		X		X			X	X	X			
6	119	Salinas	18.016482, -66.259791	Camp Santiago Army Site: Formerly used as debris collection and Processing site with over 100 Acres	Federal Government		X		X			X	X	X			
6	120	Guayama	17.953313, -66.158934	Jobos Ward: Industrial Site with 10.0 Acres	Puerto Rico Industrial Development Corporation (PRIDCO)	X		X	X			X	X	X			

- The following are the proposed initial staging areas identified on Puerto Rico. These sites may change as the debris management plan is implemented.

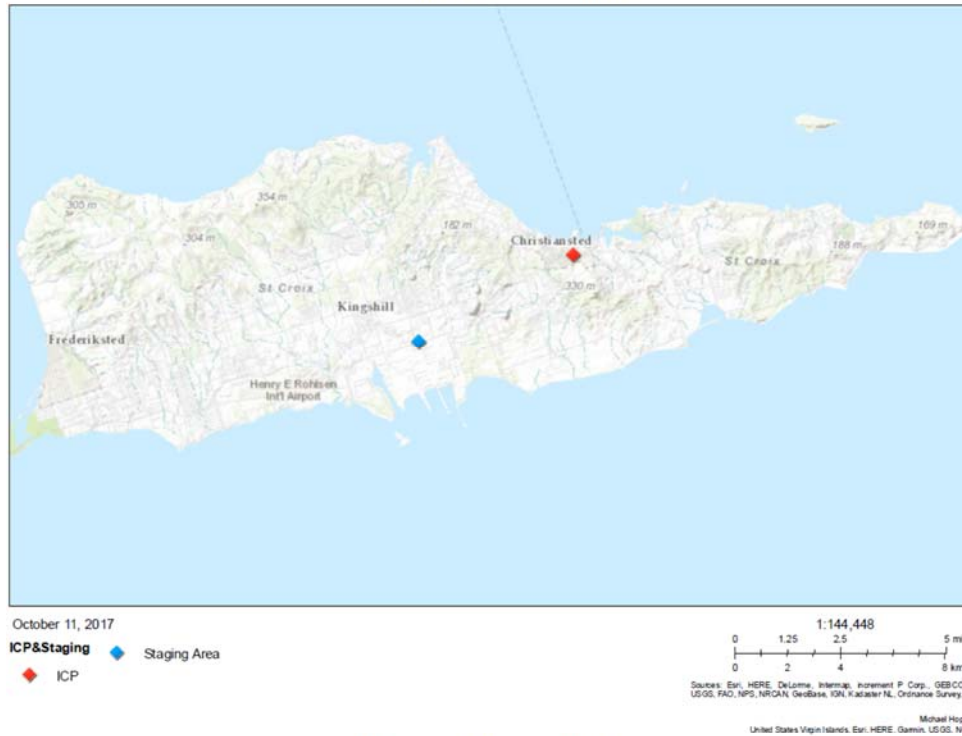


## USVI Debris Mission.

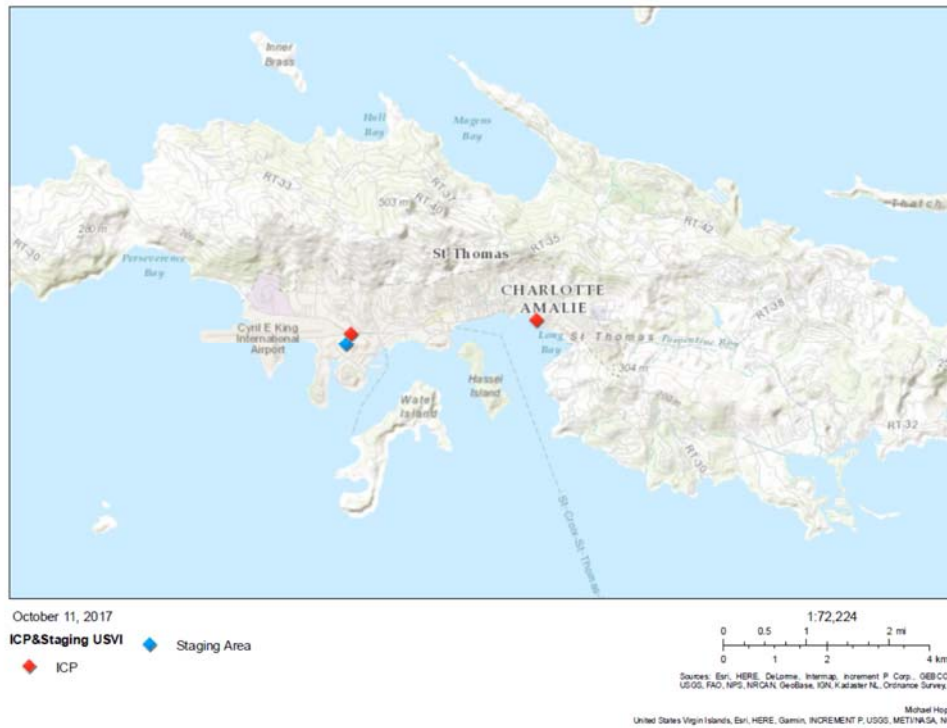
The EPA Deputy RIC for the U.S. Virgin Islands (USVI) and Incident Commander/Operations Section Chiefs have separated the USVI into three incident areas by island; St. Croix, St. Thomas, and St. John. EPA and contractor resources are currently deployed in St. Croix and St. Thomas. St. John is currently not accessible to EPA responders. Below are the locations of our Incident Command Posts (ICP) and hazardous waste/debris staging areas on STX and STT.



### St Croix ICP and Staging



### St Thomas ICP and Staging



- EPA has been requested to assist with the handling and disposal of HHW, medical waste and e-

waste. EPA will also assist with the preparation of white goods for recycling by VIWMA. A collection area has been identified on STX which is located adjacent to the Limetree Facility. EPA will also potentially conduct air monitoring at the collection area for standard chemicals of concern associated with this type of activity.

- EPA personnel began planning for the transportation & disposal of stockpiled medical waste at the hospitals on Christiansted (St. Croix, approx. 50,000 lbs) and on St Thomas (approx. 80,000 lbs). EPA personnel met with the Acting CEO/General Counsel for the Governor Juan F. Luis Hospital on STX discuss medical waste disposal activities and needs. EPA personnel met with the contractor “VI Regulated Wastes” to scope work of medical waste disposal for STX and STT. EPA anticipates receiving a proposal from the contractor for these services by Saturday 10/14.
- EPA response contractors met with the Department of Public Works to begin setting a time table for preparing a dedicated site for collection of Household Hazardous Waste (HHW) and the processing of white goods. Initial target date to begin collection is for 10/18/17 coinciding with the arrival of key supplies for this work.
- USACE has requested EPA assistance with air monitoring during the USACE’s air curtain burning of vegetative debris activities should the burn take place. USACE intends to segregate construction and demolition (C&D) debris prior to burn operations. The C&D debris will be handled by VIWMA. The VI government is allowing the vegetative debris burning option to continue within the debris management planning. EPA was informed burn activities will happen on all three islands, pending official Territorial approval.

## AIR MONITORING

**Puerto Rico.** EQB is planning to conduct an assessment on the conditions of the ambient air monitoring network. The network was taken offline prior to Hurricane Maria landfall. There is no update or information on the status or damages. They will staff an assessment team once their employees are able to return to the office.

## EMERGENCY RESPONSE

Daily/Cumulative Summary of Hazard Evaluations/Recovery for Hurricane Maria				
Status	Opened		Closed	
	10/12/2017	Cumulative	10/12/2017	Cumulative
Puerto Rico	0	0	0	0
U.S. Virgin Islands	4	8	0	0
Note: Open means that the target is yet to be recovered. Closed means the target was recovered, left in place, or access was denied to collect the item.				

## PUERTO RICO

	<b>CONTAINERS</b>	
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				TOTAL
	Drums (55 Gals)	Large Containers (<55 gals)	Large Containers (>55 gals)	
10/12/2017	0	0	0	0
Total to Date	0	0	0	0

## U.S. VIRGIN ISLANDS

	CONTAINERS			TOTAL
	Drums (55 Gals)	Large Containers (<55 gals)	Large Containers (>55 gals)	
10/12/2017	0	0	0	0
Total to Date	0	0	0	0

## SPILL/RELEASE RESPONSE

Hotline Calls as of October 13, 2017	
Number of Maria Related Calls Received During Reporting Period	0
Total Number of Maria Related Calls to Date	10
* EPA is assessing each call through the NRC to determine appropriate response and forwarding reports to field personnel to conduct further assessments and response as needed.	

## SUPERFUND NPL, SUPERFUND REMOVAL, AND OIL REMOVAL SITES

EPA personnel continue to conduct preliminary assessments at Superfund or Oil Response Sites in Puerto Rico and evaluate the potential off-site impacts as a result of Hurricane Maria. The REOC is currently following up with the RPMs for each site.

**Dorado.** EPA will be sampling four wells on this site where the community may be drawing water. The wells include two wells approved for consumption via PRDOH and PRASA – the Santa Rosa and Nevarez wells and two other wells on the site where there was evidence of access.

- We are sampling the four wells today 10/14 which will address biologic parameters as well as inorganics and VOAs. The microbiology samples will be picked up on site by a lab in Ponce and will be analyzed on island. The result turnaround for this analysis is 36 to 48 hours so we should

know biologic information on or before 10/17. The chemical samples will be shipped to the EPA Region 2 Lab for analysis and if the shipping works as planned we should have that analysis on or before 10/20. This analysis will provide us information specific to a drinking water parameter. Our QAPP is drafted and ready for the analysis we are performing. Our Data Quality Objectives are consistent with other drinking water sampling we will do during this response.

- We have already secured well #6 and we will be securing the fence and posting signs at well #4 starting today 10/14.
- FEMA has indicated to us that power will be restored to the area this weekend by 10/16 and the water infrastructure should be available to the community. However, this may not solve the problem because the community seems to have been using this site prior to any storm impact to the island. FEMA is supplying water currently to the community through their OASIS system.
- The mission on 10/14 will also include requesting from FEMA a potable water source to be located at the site of well #4 to provide an alternative drinking water option.

## Hurricane Contingency Site Summary (Remedial, Removal and Oil)\*\*

as of October 13 2017

Site	State	Type *	Phase 1 Post-storm Assessment	Phase 2 Site Inspection	Inspected	Phase 3 Additional Response Action	All Phases Completed
Puerto Rico							
Atlantic Fleet Weapons Training Area (Vie)	PR	NPL					
Barceloneta Landfill	PR	NPL					
Battery Recycling Co. (Puerto Rico Batter	PR	NPL & Removal &	9/22/2017	N	N/A	N	9/22/2017
Cabo Rojo Groundwater Contamination	PR	NPL					
Cidra Groundwater Contamination	PR	NPL	10/5/2017	N	N/A	N	10/5/2017
Corozal Well	PR	NPL & Removal	9/24/2017	N	N/A	N	9/24/2017
Culebra****	PR	Other					
Dorado Groundwater Contamination, Dora	PR	NPL	10/12/2017	Y			
Fibers Public Supply Wells	PR	NPL	10/5/2017	Y			
Fort Buchanan	PR	Other	10/6/2017	N	N/A	N	10/6/2017
Frontera Creek	PR	NPL	10/5/2017	N	N/A	N	10/5/2017
GE Wiring Devices	PR	NPL	10/6/2017	Y			
Guaynilla Bay Oil Spill***	PR	Oil	10/6/2017	Y			
Hormigas Groundwater Plume***	PR	NPL	10/6/2017	Y			
Janssen, Inc.	PR	Other	10/6/2017	N	N/A	N	10/6/2017
Juncos Landfill	PR	NPL	9/30/2017	Y	10/5/2017	N	10/5/2017
Maunabo Urbano Public Wells	PR	NPL	10/12/2017	N	N/A	N	10/12/2017
Naval Security Group Activity	PR	NPL	10/6/2017	N	N/A	N	10/6/2017
Papelera Puertorriquena	PR	NPL	9/29/2017	N	N/A	N	9/29/2017
Pesticide Warehouse 1	PR	NPL	10/4/2017	Y			
Pesticide Warehouse 3	PR	NPL	10/4/2017	Y			
Prepa Palo Seco General Depot	PR	Other	10/12/2017	N	N/A	N	10/12/2017
Puerto Rico Olefins	PR	Other	10/11/2017	Y			
Puma Caribe (CAPECO)	PR	Oil	9/21/2017	N	N/A	N	9/21/2017
RCA Del Caribe	PR	NPL	10/12/2017	N	N/A	N	10/12/2017
San German Groundwater Contamination	PR	NPL	10/12/2017	Y			
Scorpio Recycling Inc.***	PR	NPL	10/5/2017	Y			
U.S. Naval Station	PR	Other	10/6/2017	N	N/A	N	10/6/2017
Upjohn Facility***	PR	NPL	9/30/2017	Y			
V&M Albaladejo	PR	NPL	10/12/2017	N	N/A	N	10/12/2017
Vega Alta Public Supply Wells***	PR	NPL	9/30/2017	Y			
Vega Baja Solid Waste Disposal	PR	NPL	10/4/2017	N	N/A	N	10/4/2017
USVI							
Cruz Bay Oil Tank	VI	Oil	10/9/2017	Y	10/11/2017	Y	
Island Chemical Corp./Virgin Islands Chem	VI	NPL	10/5/2017	N	N/A	N	10/5/2017
Krum Bay Oil Spill at WAPA Facility	VI	Oil	10/11/2017	N	N/A	N	10/11/2017
Tutu Wellfield***	VI	NPL	10/3/2017	Y			

\* NPL and/or Removal/ and/or Oil - sites that have both active Remedial, Removal and/or Oil Program components

Other - sites are either Federal facilities, Superfund Alternative Sites or that are otherwise being managed by the Remedial Program

\*\* Only includes active removal and oil sites

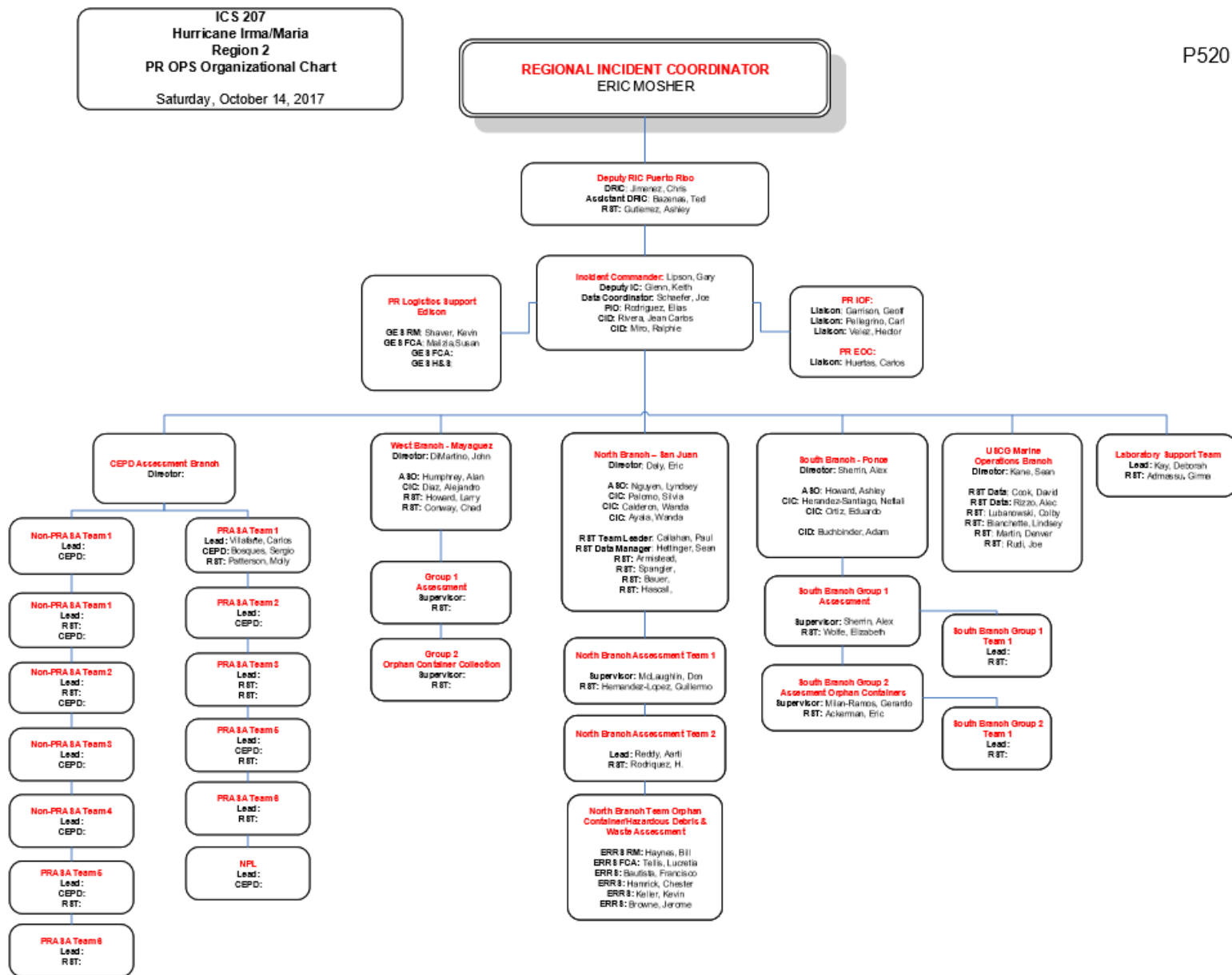
\*\*\*ERRD/RPM/CEPD reviewing Phase 1 Post Storm Assessment to determine if Phase 2 Site Inspection is warranted

\*\*\*\*Federal Facility Lead for Assessment

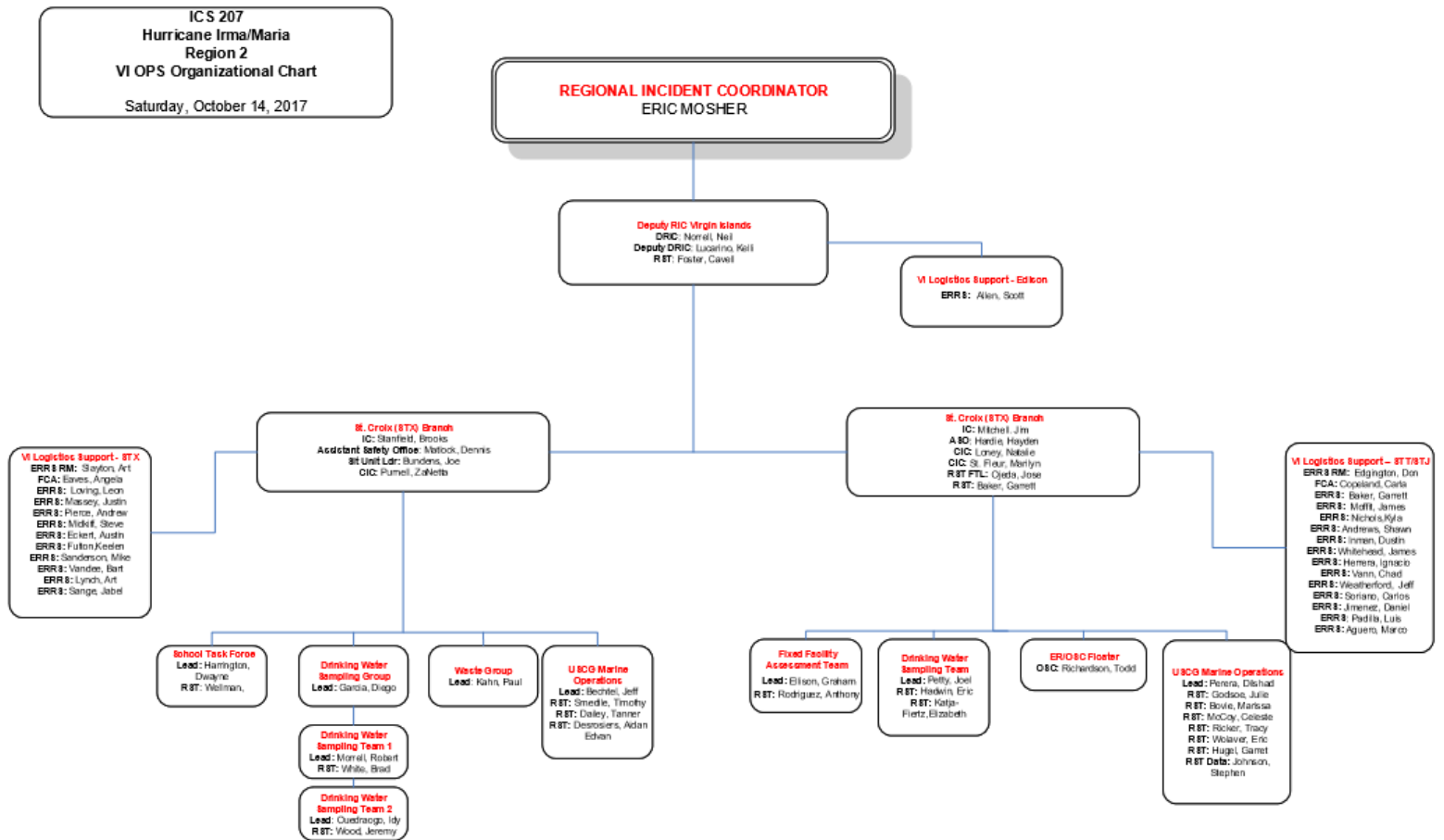
All Phases Completed

## REGION 2 RESPONSE ORGANIZATION (ICS 207)

P520

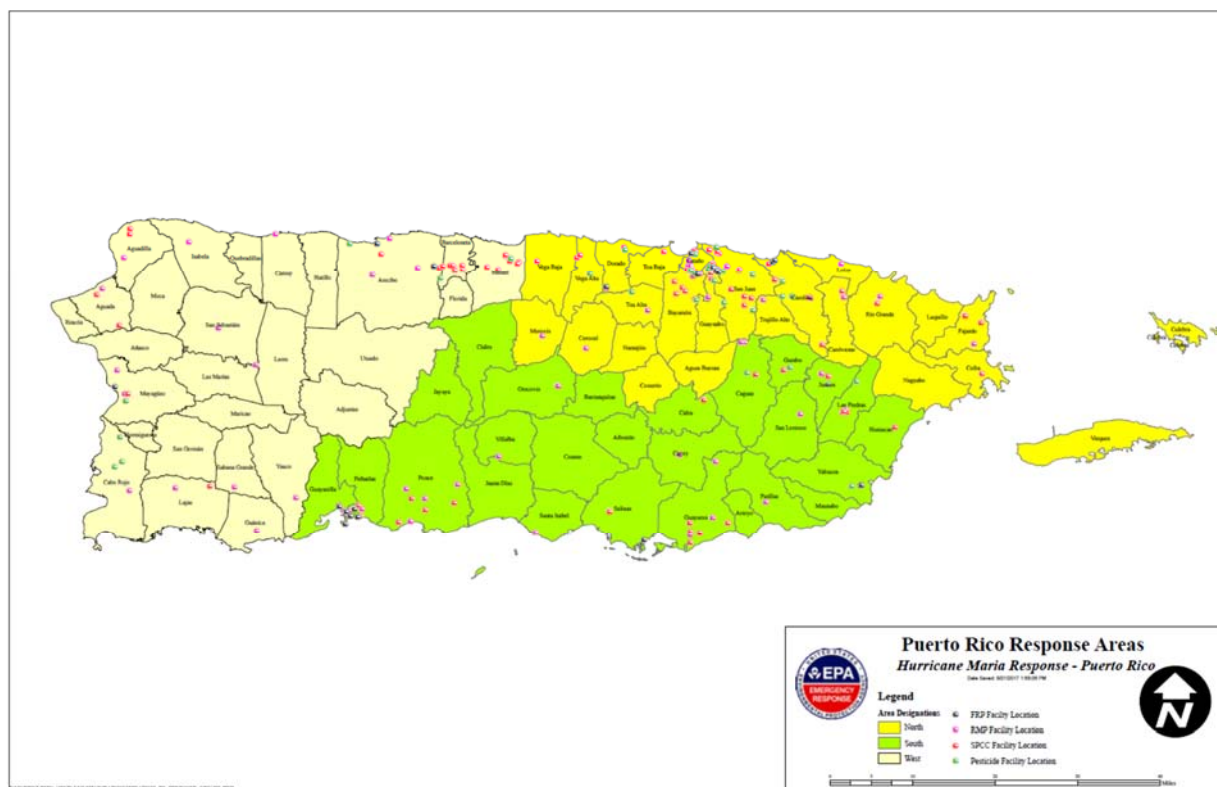






## FIELD RESPONSE ACTIVITIES

### PUERTO RICO



- The EPA Deputy RIC for Puerto Rico and Incident Commander/Operations Section Chief has separated Puerto Rico into three Branches; the North Branch, South Branch, West Branch, Marine Operations with USCG; and CID security support. A PIO Coordinator is supporting Incident Command. Additional personnel, both EPA and contractors, continue to mobilize to PR in support of the mission assignments. The IC is coordinating with the USCG for Marine Operations and hazardous material response related to sunken vessel recovery.
- The Puerto Rico Incident Commander is coordinating with the CEPD Water Inspectors, remedial and RCRA staff on site and facility assessments.
- EPA is currently coordinating with the USACE in support of EPA's hazardous materials removal operations Mission Assignment. USACE is currently evaluating several locations for debris collection staging areas. EPA plans to co-locate hazardous material staging areas at all identified staging locations. Until USACE's areas are identified, EPA is coordinating with EQB to establish a temporary hazardous materials staging area. EPA is conducting Site visits with USACE and EQB at the proposed USACE staging areas, as well municipal collection areas.
- The EPA Emergency and Rapid Response Services (ERRS) contractor has developed a plan to mobilize a barge with all the necessary equipment to support the debris MAs,

using a FEMA transport. Once all the equipment is assembled FEMA will determine the ship date for the materials. The tentative date of departure from CONUS is 10/19. ETA in PR is tentatively 10/25. In the interim, IOF staff have approached FEMA to obtain vehicles that can be used to support our debris MAs.

- A staging area at the US Army Garrison - Ft. Buchanan, in Guaynabo, has been secured for the staging of this equipment. This location will only be used to stage equipment and will not be a hazardous materials staging area.

- **North Branch**

- Assessment operations on 10/12/17 included assessments to fixed facilities in Morovis, Corozal, Rio Grande, Palo Seco and San Juan by two assessment teams. The teams were comprised of EPA personnel (OSC, Safety, Community Involvement, CID) and contractor support (RST). Operations reported no security incidents.

- **South Branch**

- Assessment operations on 10/12/17 focused on assessment of fixed facilities. The two teams in South Branch visited facilities in Salinas, Santa Isabela, Ponce and Penuelas. The teams were comprised of EPA personnel (OSC, Safety, Community Involvement, CID) and contractor support (RST). Operations reported no security incidents.

- **West Branch**

On 10/12/17, team members assessed fixed facilities in Barceloneta and San German municipalities. In addition, the team visited the San German Groundwater Plume Superfund Site in San German. The monitoring wells at the facility were secure – capped and locked. No collection of water from the Site was observed. Minor damage to fencing was observed. The teams were comprised of EPA personnel (OSC, Safety, Community Involvement, CID) and contractor support (RST). Operations reported no security incidents.

Dangerous driving conditions were present due to the heavy rainfall and closed roads may be limiting future assessments. A previously, the ASO recommends that any travel in the mountainous areas be conducted early in the day due to afternoon rain and thunderstorms.

- **Vieques**

The IC made contact with the EPA RPM on Vieques Island regarding conditions on the island. The report indicates that many transformers are downed throughout the island, reportedly non-PCB containing. The wastewater treatment plant is offline, and is receiving assistance from USACE and FEMA for a generator and fuel for the pump stations and plant. Raw sewage is

releasing to a nearby creek. Drinking water is available to approximately 90% of the island. An assessment team is scheduled to visit the island next week to better document the conditions on Vieques.

- **USCG Marine Operations**

USCG, EPA and contractors have established marine operations to locate and assess sunken vessels. Currently operations are focused on the eastern coast of PR. On 10/12/17, six teams conducted on-the-water operations to locate and evaluate the condition of sunken vessels. USCG has tentatively identified 266 sunken vessels as initial targets for assessment. Data collection and reporting procedures are under development.

- **Critical Resources Needs/Issues:**

- Commercial air traffic to PR and remains limited; several flights were cancelled on 10/8. In addition, hotel accommodations are limited, sometimes necessitating double rooming. Requests for berthing of personnel and transport of equipment have been made through the proper channels at the NRCC, and progress in this area is noted in the Incident Command portion of the SITREP.
- Fuel to run generators is becoming scarce, Additional generators are needed to support critical infrastructure.
- Cellular communications and internet connectivity intermittent in most areas of PR, making communication with the field teams difficult, though recent progress has been observed. Satellite phones have been distributed to field teams to address communication challenges.
- Dangerous driving conditions are evident in many of the mountainous areas of PR due to the excessive rain and denuded hillsides. Health and Safety identified USGS data with satellite imagery that locates many of the recent mudslides. This data is being added to the EPA Viewer.

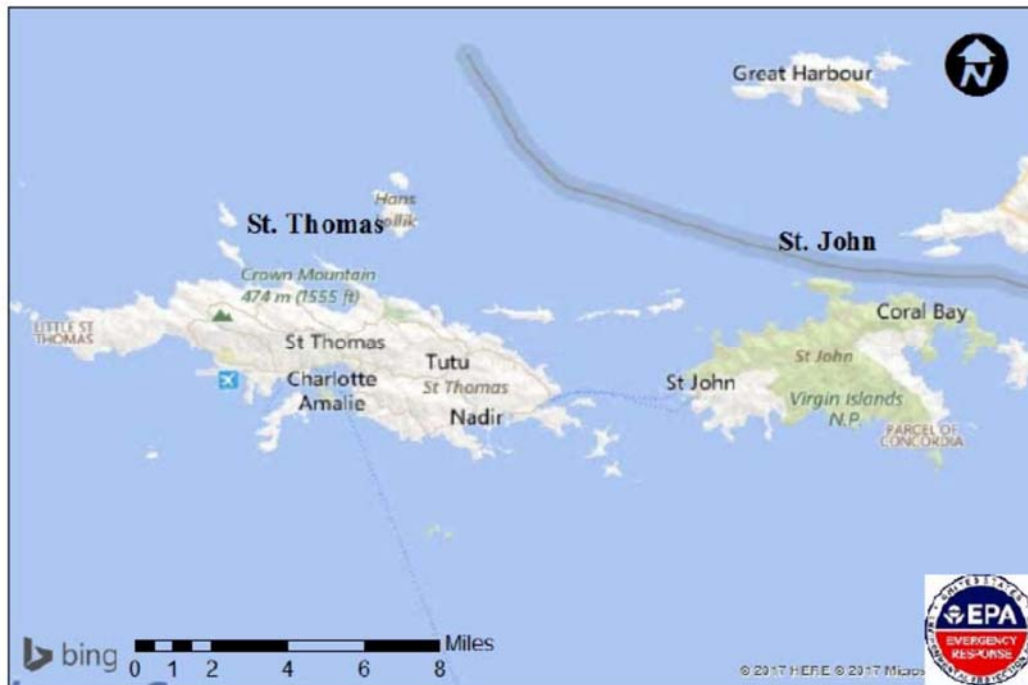
## **FEMA IOF and PR EOC**

- EPA continued coordination with FEMA, the USACE, USCG, and the Commonwealth of PR in regards to field operations, assessment of fixed facilities and data transfer.

## **FEMA IOF and PR EOC**

- EPA continued coordination with FEMA, the USACE, USCG, and the Commonwealth of PR.

## **U.S. VIRGIN ISLANDS**



- **STX:**
  - Facility assessments on STX have been completed.
  - EPA continues to coordinate with the USCG on supporting vessel recovery operations.
  - EPA ERRS contractor procured a method for shipping of materials and

equipment to the USVI. The materials and equipment will be shipped via barge leaving the port in Fort Lauderdale, Florida Thursday October 14th and will arrive in STT Sunday October 17th. The barge will off load some materials and equipment in STT and will then travel to STX and off load the remaining materials and equipment on Wednesday October 18th.

- **STT/STJ:**

- EPA continued the assessment of EPA regulated facilities.
- EPA IC attended the Emergency Operations Briefing for ESFs at Virgin Islands Territory Emergency Management Agency (VITEMA). Summary of each ESF day's activities is provided to FEMA by each ESF lead.
- EPA continues to coordinate with DPNR on the pesticides and herbicides contained at the Cost U Less (membership type wholesale club) store that had sustained heavy storm damage. EPA intends to revisit the store to ensure proper handling of the materials is occurring.
- EPA continues to coordinate with the USCG on supporting vessel recovery operations.

- **USCG Marine Operations**

#### **Data Management**

EPA (1 OSC, 3 RST) met with USCG, USACE, FEMA, Fish & Wildlife, DPNR and St. Croix Yacht Club personnel.

One RST performed data entry while one accompanied the water assessment team and one went with the land based assessment team. RST used iPads to input the vessel data into Survey 123 forms in the field.

EPA reduced the number of active data points for distressed vessels identified on the NOAA Environmental Response Management Application (ERMA) for St Croix from 122 to 86.

EPA RST will continue inputting the vessel assessment info into the Geo Platform which is then uploaded to ERMA.

Land and water based teams will continue operations to ground truth the remaining ERMA points.

#### **Community Engagement**



St Croix Yacht Club informed DPNR of six missing vessels presumed sunk but not identified on the ERMA map.

DPNR is compiling a list of owners of the distressed vessels based upon their initial assessments. Owners will be notified by phone, by certified letter and by public service announcements that their vessel needs to be removed.

The USVI PIO is finalizing a public service announcement which should be issued this week sometime advising owners of sunken or grounded boats that they need to remove them by the deadline or the USCG will remove them. USCG has set a hard date of November 10th after which all distressed vessels will be removed.

Vessels located in sensitive areas will be removed prior to Nov 10th and staged west of the seaplane ramp in Christiansted pending the owner's response. Vessels whose owners sign the waiver allowing removal of them will be removed ASAP.

### **Response Actions and Issues**

One fuel recovery team staffed by NRC, USCG and RST personnel will begin removing fuel from the first leaking vessel located in Salt River tomorrow.

USCG will contract either National Response Corp (NRC) and/or Resolve Maritime to remove and dispose of fuels removed from vessels via VI Regulated Waste. They will also remove the batteries and dispose of them through VI Regulated Waste.

NRC personnel placed boom around a sport fishing boat leaking fuel in the Salt River. This will be addressed first once fuel removal operations commence.

- **Critical Resource Needs/Issues:** Although commercial air traffic to the USVI has increased, flights to and from the islands remain limited. This is making transport of personnel and equipment needed to support the missions assigned and requested of EPA difficult. Lodging is in short supply, and remains a critical factor in determining the speed of EPA's transfer of personnel. Fuel to run generators is becoming scarce and additional generators are needed to support critical infrastructure. Cellular communications and internet connectivity on all islands remains intermittent, making communication with the field teams difficult. Satellite phones have been distributed to address the gaps in cellular service. Driving conditions remain hazardous due to downed power poles/lines and power outages causing a lack of traffic signals making travel around the islands difficult and time- consuming.

### **REGION 2 REGIONAL EMERGENCY OPERATIONS CENTER (REOC)**

- Resource orders have been entered into the WebEOC Personnel Resource Log for a mobilization of an additional personnel. All EPA Regions, EPA HQ, and EPA Special Teams have been providing personnel resources. Region 2 will continue to move personnel and equipment into both Puerto Rico and the U. S. Virgin Islands depending on lodging/berthing limitations. EPA personnel are continuing to evaluate Superfund

and Oil Sites in PR and USVI. The REOC is currently following up with ERRD and the OSC/RPMs for each site following preliminary assessments. The REOC is maintaining a hotline log of hurricane related calls and will reconcile them as personnel on the ground assess them.

#### EPA RESOURCES AS OF 10/13/2017

Personnel	EPA Edison, NJ NYC	FEMA NRCC, DC	San Juan, Puerto Rico*	Mayaguez, Puerto Rico	Ponce, Puerto Rico	St. Croix USVI*	St. Thomas/St. John USVI*	Totals
EPA	72	1	22	7	9	10	7	128
CEPD (EPA)	0	0	22	0	2	0	1	25
START/RST	16	0	16	2	2	5	12	53
ERRS	7	0	6	0	0	12	15	40
Coast Guard^	1	0	0	0	0	0	0	1
Other Contractors	0	0	0	0	0	0	0	0
Totals	96	1	66	9	13	27	35	247

- \*Number includes personnel working at IOF, EOC.
- ^Number includes Coast Guard personnel working directly with EPA.

#### AGENCY COORDINATION

Region 2 has one rep staffing the ESF-10 desk in the FEMA NRCC in Washington D.C. EPA has an OSC in the VITEMA/FEMA EOC bunker in St. Croix.

Environmental Response Management Application (ERMA). NOAA supports an ERMA viewer for both EPA Region 2 and the U.S Coast Guard. Aerial photos are available through the following link.

<https://erma.noaa.gov/caribbean/erma.html#/layers=3+36619+36620+36611+36618&x=-65.62791&y=18.14726&z=9&panel=layer>

#### DRINKING WATER / WASTEWATER

##### Puerto Rico Facility Assessment Summary

Drinking Water and Wastewater Assessments (October 12, 2017)		
Assessment Types	Daily Assessments	Total Assessments
On-Site DW Assessments	2	38

## Puerto Rico Drinking Water Status

- **PRASA** – PRASA reports that **37%** of clients are without drinking water service. The La Plata Dam was reenergized and will be able to supply additional drinking water to 140,000 clients in the Metropolitan Area, including municipalities in Bayamon, Toa Baja, and Toa Alta.
  - **37 of the 115 drinking water treatment plants (WTPs) operated by PRASA are out of service.**
  - **78 WTPs are working on alternate power or primary power.**
  - **37% of the population are without drinking water services.**
  - **The plants that are out of services are because lack of primary power, lack of diesel, operational problems or clogged intakes.**
  - **The DOD has installed Reverse Osmosis drinking water plants in the municipalities of Añasco, Comerio, Lares and Maricao since the PRASA drinking water facilities in these municipalities have major problems with their drinking water intakes and it will take PRASA sometime to get their facilities in service.**
  - **List of Plants out of service:**
    - **Minillas (2.0 MGD) – Alternate Power Unit out of service.**
    - **Caguas Norte (6.0 MGD) - Alternate Power Unit out of service.**
    - **Jagual (0.6 MGD) - Alternate Power Unit out of service.**
    - **Barrancas (0.5 MGD) – Raw water pipe broken.**
    - **Cayey Urbano (3.5 MGD) – Raw water intake out of service.**
    - **Barrio Nuevo (0.75 MGD) – FEMA installed a power generator, waiting for diesel supply.**
    - **Rio Arriba (0.25 MGD) - Raw Water Intake collapsed.**
    - **Quebrada (2.0 MGD) – Raw Water Pump Station out of service.**
    - **Hatillo-Camuy (3.5 MGD) - Raw Water Intake collapsed.**
    - **Canalizo (0.14 MGD) – Raw water pump station Alternate Power Unit out of service.**
    - **Mameyes Arriba (0.43 MGD) – Raw water pump station Alternate Power Unit out of service.**
    - **Lares Nueva (4.0 MGD) – Raw water pump station flooded. Emergency**

work contracted.

- Mameyes Abajo (0.22) - Raw water pump station Alternate Power Unit out of service.
- Roncador (1.0 MGD) – Unknown reasons.
- Santa Isabel (1.0 MGD) - Raw water pump station Alternate Power Unit out of service.
- Utuado Urbano (3.5 MGD) - Raw water pump station Alternate Power Unit out of service.
- Fronton (0.25 MGD) - Raw water pump station collapsed. Emergency work contracted.
- Morovis Sur (4.0 MGD) – Critical electrical components of the facility were damaged.
- Sanamuerto (0.5 MGD) - Alternate power unit out of service.
- Corozal Urbano (1.5 MGD) - Raw water pump station Alternate Power Unit out of service.
- Negros (2.5 MGD) – Raw water pump station flooded.
- Aguadilla (18.0 MGD) – Raw Water Supply clogged, being cleaned by DOD. This should be resolved next week.
- Guajataca (2.0 MGD) - Raw Water Supply clogged, being cleaned by DOD. This should be resolved next week.
- Isabela (5.0 MGD) - Raw Water Supply clogged, being cleaned by DOD. This should be resolved next week.
- Maginas (3.0 MGD) - Alternate power unit out of service.
- Monte del Estado (0.25 MGD) – Alternate power unit out of service.
- Sabana Grande (0.75 MGD) – Operational equipment damaged.
- Coamo Urbano (1.05 MGD) – Collapsed raw water intake.
- Aceituna (2.5 MGD) - Collapsed raw water intake.
- Apeadero (0.25 MGD) - Collapsed raw water intake.
- Lizas (1.0 MGD) - Raw water pump station Alternate Power Unit out of service.
- Patillas (6.0 MGD) - Alternate Power Unit out of service.
- Adjuntas Nueva (1.0 MGD) - Alternate Power Unit out of service.
- Hogares Seguros (0.22 MGD) - Alternate Power Unit out of service.

- Rucio (0.18 MGD) – Raw water pipe broken.
- Rio Prieto (0.4 MGD) – No access to the facility.

- **Non-PRASA Water Treatment Systems:**

Currently working with FEMA, USACE, EPA, and DOH to coordinate federal support to Non-PRASA drinking water facilities. In Puerto Rico, there are 297 independent private and community water treatment systems that serve approximately 4% of the population. Details of proposed visit schedule for EPA and DOH Assessment Teams was sent to EPA Region 2 Puerto Rico Incident Coordinator.

EPA is working with PRDOH and DOD, HHS and FEMA, in assessing the non-PRASA drinking water systems throughout PR. Such systems provide drinking water from wells and surface water to isolated communities located in rural areas in PR. Deployed teams assess drinking water quality, assess the condition of the systems, and identify other immediate needs (i.e., food, shelter, medical support, etc.). Identified needs are referred to FEMA/PREMA.

**Puerto Rico Wastewater Status:**

- 21 of the 51 wastewater treatment plants (WWTPs) operated by PRASA are out of service.
- 30 WWTPs are working on alternate power.
- Most of the WWTPs that are out of service are not receiving any sewage due to collapsed trunk sewers or main pump stations with operational problems.
- Of the 21 WWTPs out of service, 12 are located upstream of a drinking water intake. These facilities are:
  - Cayey (4.0 MGD) – Main trunk sewer collapsed, no sewage reaching the plant.
  - Comerio (1.0 MGD) – Main trunk sewer collapsed, no sewage reaching the plant.
  - Jayuya (1.0 MGD) – Lack of Diesel.
  - Utuado (2.0 MGD) - Main trunk sewer collapsed, no sewage reaching the plant.
  - Lares (1.2 MGD) - Alternate Power Unit out of service.
  - Ciales (1.5 MGD) – Main trunk sewer collapsed, no sewage reaching the plant.
  - Unibon Morovis (0.2 MGD) – Lack of Diesel.
  - Corozal (1.25 MGD) - Main trunk sewer collapsed, no sewage reaching the plant. PRASA already has a contractor on site. It may take two weeks for repairs.

- San Sebastian New (1.0 MGD) – Facility suffered major equipment damages since it was completely flooded by the Culebrinas river.
  - San Sebastian Old (0.5 MGD) – Collapsed Trunk sewer, no entrance to the facility.
  - Maricao (0.25 MGD) - Main trunk sewer collapsed, no sewage reaching the plant.
  - Las Marias (0.3 MGD) - Alternate Power Unit out of service.
- The remaining 9 WWTPs out of service are:
    - Culebra (0.2 MGD) – No entrance to the facility.
    - Rio Grande Estates (0.8 MGD) - Alternate Power Unit out of service.
    - Humacao (8.2 MGD) - Alternate Power Unit out of service.
    - Yabucoa (1.5 MGD) - Alternate Power Unit out of service.
    - Carolina (45 MGD) – Main Pump Station (Torrecillas) out of service. No influent to the plant.
    - Dorado (4.05 MGD) - Facility suffered major equipment damages since it was completely flooded by the La Plata river.
    - Toa Alta (0.8 MGD) – Plant was flooded, major equipment damages.
    - Vega Alta (2.0 MGD) - Alternate Power Unit out of service.
    - Santa Isabel (5.5 MGD) - Alternate Power Unit out of service.
  - PRASA owns close to 800 sanitary pump stations. PRASA has been able to assess around 80% of the pump stations.
  - Today, at least 296 sanitary pump stations are overflowing sewage due to lack of power, malfunctioning power generator or pumping problems.
  - Of these 296 pump stations, 117 are located upstream of a water supply intake.
  - The biggest concern is the Torrecillas Pump Station, which is tributary to the Carolina WWTP and is the largest pump station in the island. The station, which currently pumps around 25 MGD suffered major damages due to flooding.

### USVI Facility Assessment Summary

Drinking Water and Wastewater Assessments (October 12, 2017)		
Assessment Types	Daily Assessments	Total Assessments
On-Site DW Assessments	29	428
On-Site WW Assessments	0	0

### USVI Drinking Water Status

- DPNR plans to initiate a 3-month alternative drinking water monitoring procedure, and will re-evaluate the need to continue at the end of the 3-month period. The monitoring procedure will shift from compliance monitoring to surveillance monitoring, with focus



on bacteria and chlorine. The DPNR has not issued a press release yet. When they do, it will be forwarded to DW/WW, then from there forwarded to PAD. Additionally, a boil water advisory will remain in place across the USVI.

- VIWAPA is reporting:
  - The Virgin Islands Water and Power Authority has issued a precautionary boil water notice for potable water customers territory-wide. Due to a drop in water pressure, as a precaution, we advise that all water used for drinking, cooking, making infant formula or juices, making ice, brushing teeth, washing fruits or vegetables and washing dishes, be boiled. Bringing water to a rolling boil and maintaining for one full minute is sufficient. Water must be adequately cooled before it can be used and should be stored in clean, covered containers. As an alternative, bottled water certified for sale by the Department of Health may be used.
  - On St. Thomas, there are six days of emergency water storage. Work continues to restore electrical service to pump stations at Contant Knolls and Savan. Restoration of those pump stations will facilitate the resumption of potable water service in the areas.
  - On St. John, there are two days of emergency water storage on the island with the water distribution system throughout Cruz Bay functioning normally.
  - On St. Croix, there are five days of emergency water storage. A faulty motor led to the Concordia pump station being taken off line. Until repairs are completed, customers in mid-island and Frederiksted will experience lower than usual water pressure.
- **Field Reports**
  - STX:
    - Drinking water sampling continued in coordination with DPNR. Samples collected are taken to the Ocean Systems Lab on STX for microbial analysis.
    - DPNR continues to resample facilities which had previously tested positive for the presence of bacteria.
    - EPA continues to coordinate drinking water sampling with DPNR. DPNR continues to notify the proprietors of the affected systems to ensure proper disinfection measures are taken.
  - STT/STJ:
    - Drinking water sampling activities continue. EPA continues to coordinate drinking water sampling with DPNR. Samples collected are taken to the Ocean Systems Lab on STT for microbial analysis.

- EPA is continuing to coordinate with DPNR to prioritize drinking water facilities to be assessed and sampled.

### USVI Wastewater Status

- VIWMA continues assessments of all waste water facilities. Most facilities assessed to date either need a generator to power the facility or fuel for the facility. All critical needs for the facilities have been relayed to the appropriate ESF. No further action has been requested of EPA at this time.

### USVI Drinking Water Laboratory Information

- No update during the reporting period.

## REGULATED FACILITIES

### Puerto Rico

Facility Type	Field Assessments Completed On 10/12/2017	Field Assessments On 10/12/2017 Requiring Follow-up Action	Total Field Assessments Completed to date	Total # of Facilities to be Assessed
RMP	7	5	63	56
FRP	5	3	28	23
SPCC (non-FRP)	11	5	94	0 *
Total	23	13	185	79

### U.S. Virgin Islands

Facility Type	Field Assessments Completed On 10/12/2017	Field Assessments On 10/12/2017 Requiring Follow-up Action	Total Field Assessments Completed to date	Total # of Facilities to be Assessed
RMP	0	0	1	1
FRP	0	0	3	6
SPCC (non-FRP)	0	0	19	0*
Total	0	0	23	7

\* Total number of SPCC facilities assessed is identified by impacted geographic areas.

The Regulated Facility Assessment Coordinator (RFAC) continues to coordinate damage assessment and field assessment referral information with other R2 inspection programs working in UST, Federal Facilities, RCRA, CAA, and NPDES. The UST program remains in touch with DPNR and EQB UST program managers, and continues to provide updates on gas

stations in the USVI and PR. The Federal Facilities Coordinator has been following up with federal facilities in PR and the USVI, and is periodically updating the RFAC as appropriate.

## **LONG RANGE PLANNING**

### **Hurricane Irma Recovery Update:**

- **NDRF and FEMA Recovery Support Function(s):**
  - NDRF activation: The NDRF still has not yet been activated in either PR or the VI. The Federal Disaster Recovery Officer (FDRO) is in the Virgin Islands and the Federal Disaster Recovery Coordinator (FDRC) has still not been deployed.
  - Recovery Support Functions (RSFs): CASD has prepared a staffing plan (both NY and PR staff) for all 6 Recovery Support Functions (RSFs) which include Community Planning & Capacity Building, Economic, Housing, Health & Human Services, Infrastructure, and Natural & Cultural Resources.
    - The Community Planning and Capacity Building RSF coordinator was deployed.
    - The Health and Social Services RSF Coordinator is asking EPA to do a full EJ analysis for all islands, data on water/water facilities connected with/to health care facilities, and a list of superfund/brownfield sites situated near health care facilities.
  - Mission Scoping Assessment (MSA) and Recovery Support Strategy (RSS) Planning: EPA has been participating in the daily the daily Regional Interagency Coordination team recovery meetings organized by FEMA. These meetings are preliminary planning meetings that will support long term recovery and support the development of the Recovery Support Strategies (RSS).
- **National Coordination:**
  - Office of Water (OW): Sandra Connors, Deputy Office Director in OW's Office of Wetlands, Oceans and Watersheds, will meet with the Region to discuss her Office's potential support for the regional recovery efforts.
  - Office of Policy (OP): OCFO is collecting proposals for what EPA could contribute if Congress was to appropriate additional funds for hurricane recovery. Below is the write-up that we prepared to support all three recovery efforts.

- Office of Land and Emergency Management (OLEM): Region 2 is working with Adam Klinger, senior analyst from OLEM's within the Office of Communications, Partnerships and Analysis (OCPA) on a potential project using brownfields/waste sites to site renewable energy for critical infrastructure.
- **Emerging Recovery Issues:** Housing that is supported by resilient infrastructure, resilient and affordable power distribution and generation, infrastructure repair, maintenance and resiliency, workforce development to support recovery (e.g., housing, debris removal) and a more robust long-term economy, long-term disaster debris/solid waste management, technical assistance for better community and mitigation planning as well science and data that can be used for recovery decision-making.
- EPA has commenced compiling estimates of needs for recovery, including preliminary cost estimates. R2 is coordinating this effort with HQ.
- **Topics of Interest from FEMA Daily Reports:** Nothing to report.
- **Other:** Nothing to report.

## DECLARATIONS FOR HURRICANE IRMA

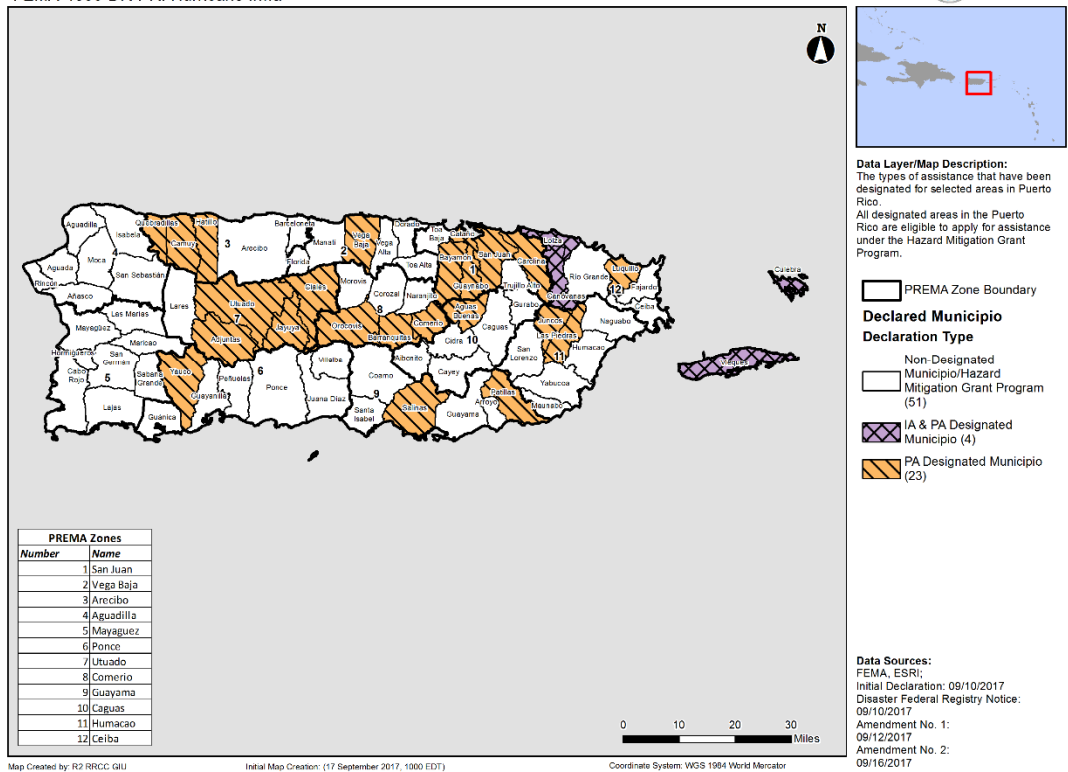
### Puerto Rico.

Emergency Declaration FEMA-3384-EM effective September 5. Assistance is for all 78 municipalities in the Commonwealth of PR. The Governor of Puerto Rico requested a disaster declaration 9/8.

Disaster Declaration FEMA-4336-DR effective September 9. Declared areas only include Culebra and Vieques. On 9/13 ten additional municipalities in Puerto Rico were added to the major declaration, and are now eligible for work under any DFA MA's that we receive. The municipalities are: Adjuntas, Canovanas, Carolina, Guaynabo, Juncos, Loiza, Luquillo, Orocovis, Patillas, and Utuado.

On 9/15, fifteen additional municipalities were added to the major declaration and are now eligible for Public Assistance. The municipalities are: Aguas Buenas, Barranquitas, Bayamón, Camuy, Cataño, Ciales, Comerío, Hatillo, Jayuya, Las Piedras, Quebradillas, Salinas, San Juan, Vega Baja, and Yauco..

# **Puerto Rico Declaration Map, Amendment 2** FEMA-4336-DR-PR: Hurricane Irma

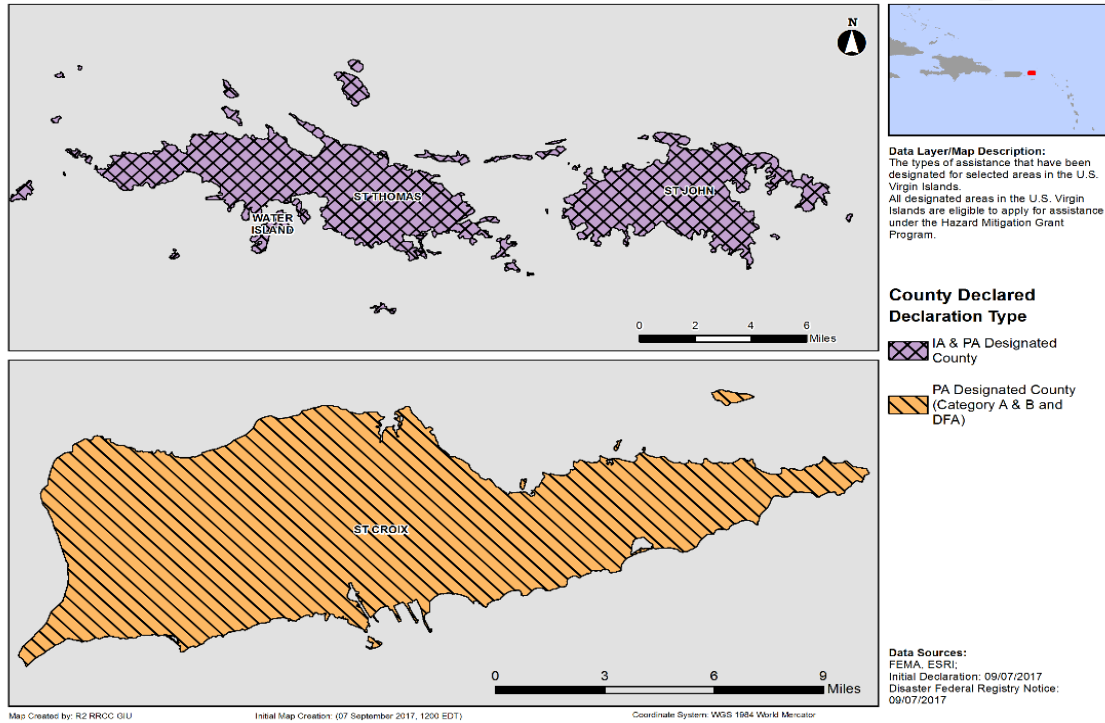


## **U.S. Virgin Islands.**

Disaster Declaration FEMA-4335-DR effective September 7, 2017. St. Thomas and St. John approved for Individual Assistance, all islands eligible for Public Assistance and the Hazard Mitigation Grant Program.

Emergency Declaration FEMA-3383-EM effective September 5. Assistance is for all islands in the Territory of the USVI.

**U.S. Virgin Islands Declaration Map (07 September 2017, 1200 EST)**  
 DR-4335-USVI: Hurricane Irma



## DECLARATIONS FOR HURRICANE MARIA

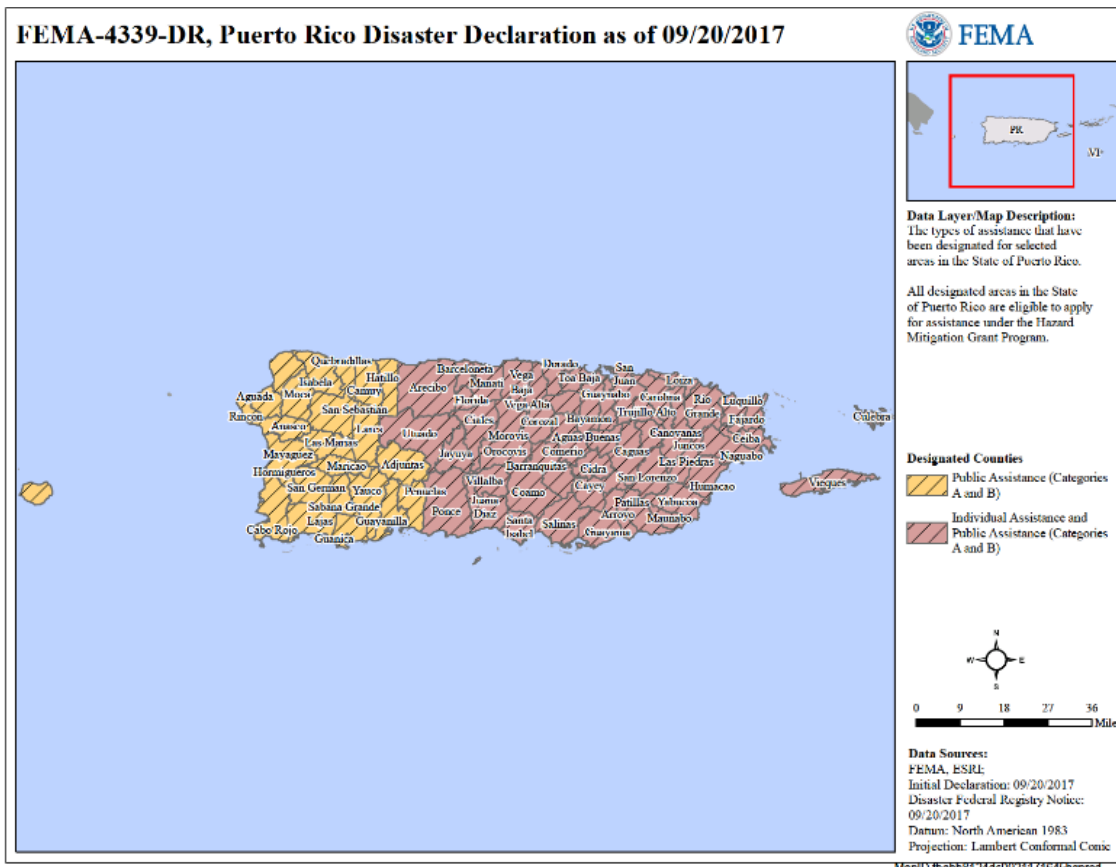
### Puerto Rico.

Emergency Declaration. The President has signed Emergency Declaration FEMA-3391-EM for Puerto Rico.

On 9/20, The President has signed a Disaster Declaration FEMA-4339-DR for Puerto Rico.

The White House initial statement covers 54 municipalities. The municipalities included in the disaster declaration are: Aguas Buenas, Aibonito, Arecibo, Arroyo, Barceloneta, Barranquitas, Bayamón, Caguas, Canóvanas, Carolina, Cataño, Cayey, Ceiba, Ciales, Cidra, Coamo, Comerio, Corozal, Culebra, Dorado, Fajardo, Florida, Guayama, Guaynabo, Gurabo, Humacao, Jayuya, Juana Díaz, Juncos, Las Piedras, Loíza, Luquillo, Manati, Maunabo, Morovis, Naguabo, Naranjito, Orocovi, Patillas, Ponce, Rio Grande, Salinas, San Juan, San Lorenzo, Santa Isabel, Toa Baja, Toa Alta, Trujillo Alto, Utuado, Vega Alta, Vega Baja, Vieques, Villalba, Yabucoa.

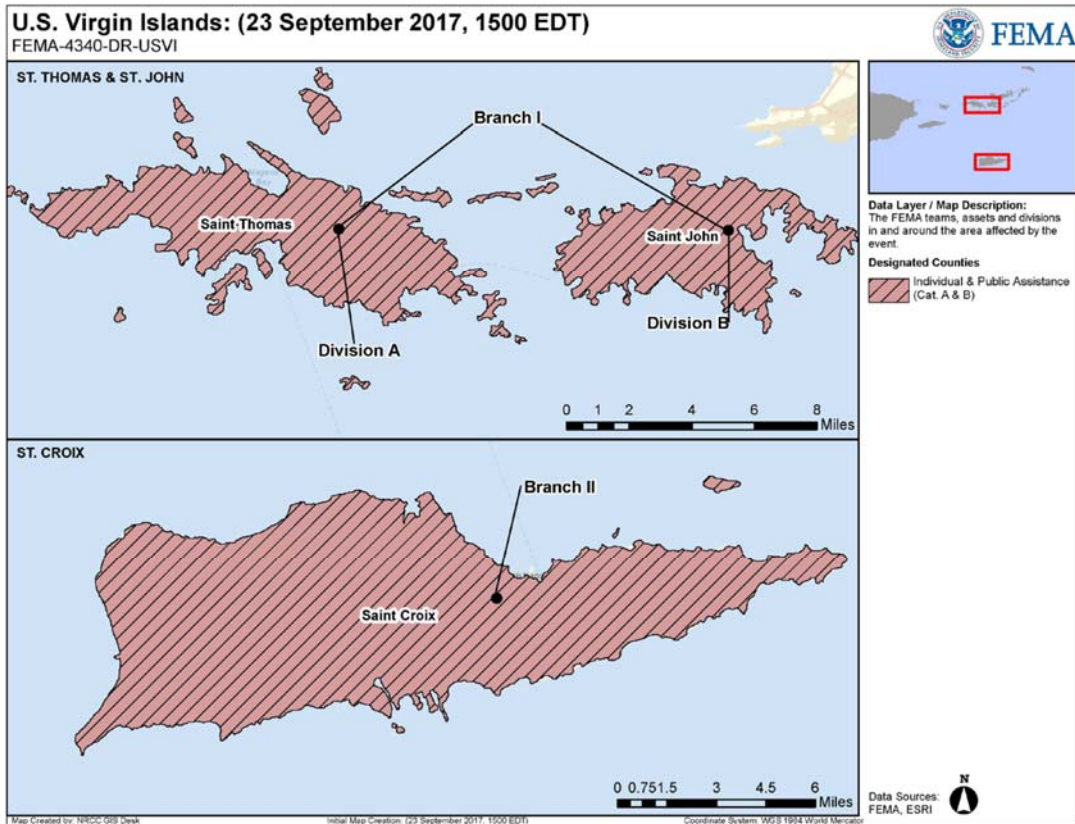




## U.S. Virgin Islands.

Emergency Declaration. The President has signed Emergency Declaration FEMA-3390-EM for the Territory of the U.S. Virgin Islands for Hurricane Maria.

On 9/20, The President has signed a Disaster Declaration FEMA-4340-DR for the Territory of the U.S. Virgin Islands for Hurricane Maria.



## FUNDING FOR IRMA AND MARIA

Mission Assignment Number	Purpose	Start Date	End Date	Total Amount	Indirect Costs	Amt. Available	Daily Burn Rate	Used	Balance
4335DR-VI-EPA-01 (X06)	EPA to FEMA R2 RRCC (Colts Neck, NJ) and FEMA NRCC (Washington, DC)	09/07/17	10/07/17	\$100,000	\$10,466	\$89,534	\$2,700	\$56,660	\$32,874
4335DR-VI-EPA-06 (X12)	EPA to FEMA RRCC, JFO, EPA REOC, State EOC, PDA & NRA Teams and other coordination venues	09/02/17	10/14/17	\$2,000,000	\$209,329	\$1,790,671	\$30,000	\$1,498,719	\$291,952
4336DR-PR-EPA-01 (X10)	EPA to FEMA RRCC. Funding for EPA command centers is authorized.	09/10/17	10/10/17	\$125,000	\$13,082	\$111,918	\$0	\$87,351	\$24,567
4336DR-PR-EPA-02 (X15)	Assess oil & hazmat releases, contaminated debris & other environmental events in PR	09/09/17	10/31/17	\$1,008,000	\$105,502	\$902,498	\$20,000	\$780,077	\$122,421
4335DR-VI-EPA-02 (X07)	Assess oil & hazmat releases, contaminated debris & other environmental	09/07/17	10/31/17	\$1,008,000	\$105,502	\$902,498	\$15,000	\$858,510	\$43,988

	events in VI								
4335DR-VI-EPA-04 (X11)	Removal, cleanup and disposal of oil & hazmat; collect and dispose of HHW; monitor immediate threats to public H&S and the environment in the VI	09/13/17	11/30/17	\$10,000,000	\$1,046,646	\$8,953,354	\$40,000	\$617,518	\$8,335,836
4339DR-PR-EPA-03 (X16)	Removal, cleanup and disposal of oil & hazmat; collect and dispose of HHW; monitor immediate threats to public H&S and the environment in PR	09/28/17	10/30/17	\$10,000,000	\$1,046,646	\$8,953,354	\$40,000	\$414,504	\$8,538,850
4339DR-PR-EPA-04 (X17)	Coordinate/Execute all necessary assessments, evaluations, sampling and analytical services/support to ensure the safety and quality of drinking water & wastewater	9/30/2017	12/31/2017	\$6,000,000	\$627,988	\$5,372,012	\$15,000	\$95,080	\$5,276,932
4339DR-PR-EPA-01 (X18)	EPA to FEMA NRCC or PR JFO/EOC	9/23/17	11/30/17	\$303,000	\$31,712	\$271,288	\$5,000	\$81,639	\$189,649
4340DR-VI-EPA-01 (X19)	EPA to FEMA NRCC or USVI JFO/EOC	9/23/17	11/30/17	\$130,000	\$13,606	\$116,394	\$0	\$0	\$116,394
4340DR-VI-EPA-04 (X20)	EPA to RRCC, JFO, EPA REOC, State EOC and other coordination venues to support FEMA response operations in the USVI	9/17/17	11/30/17	\$2,100,000	\$219,795	\$1,880,205	\$55,000	\$52,744	\$1,827,461
VI-17090102-EPA-01 (X03)	EPA to FEMA R2 RRCC (Colts Neck, NJ)	09/02/17	09/11/17	\$10,000	\$1,046	\$8,954	\$0	\$8,954	\$0
PR-17090102-EPA-01 (X05)	EPA to FEMA R2 RRC and other coordination venues as necessary	09/01/17	09/11/17	\$20,000	\$2,093	\$17,907	\$0	\$17,907	\$0
3384EM-PR-EPA-01 (X04)	EPA to FEMA RRCC, JFO, EPA REOC, State EOC, PDA and NRA Teams and other coordination venues	09/06/17	09/16/17	\$75,000	\$7,850	\$67,150	\$0	\$64,800	\$2,350
<b>Grand Total</b>						<b>\$29,437,737</b>	<b>N/A</b>	<b>\$4,634,463</b>	<b>\$24,803,274</b>

## FUEL WAIVERS, ORDERS, AND NO ACTION ASSURANCES

- On 9/26 EPA approved a request from PR for an emergency fuel waiver to minimize disruptions of the supply of diesel fuel for mobile nonroad generators and pumps used for emergency purposes. EPA renewed the waiver on 10/11. It now expires on 10/30/17. The waiver allows parties in Puerto Rico to sell, distribute and use heating oil and marine fuel designated for use in Emission Control Areas (ECA marine fuel) that exceed the 15 parts per million (ppm) sulfur standard if the fuel meets certain conditions. EPA and DOE are actively monitoring the fuel supply situation.
- On 9/27 EPA HQ issued an amended No Action Assurance (NAA) concerning the importation, sale, donation or distribution of mobile power generators in Puerto Rico to increase the number of generators available for use during the recovery from the devastation of Hurricane Maria. The NAA supersedes one issued by EPA on 9/22 and covers two categories of mobile power generators. The NAA allows the import and sale of mobile power generators that, while not otherwise legal for import and sale in PR, satisfy air pollution emissions standards that are similar to current EPA standards; and also allows for the import and use of other mobile power generators that do not meet standards similar to current EPA standards, but only if, among other things, they are removed from service and not operated whatsoever in Puerto Rico after 3/31/18.
- On 9/27 EPA HQ issued an essentially identical NAA concerning the importation, sale, donation or distribution of mobile power generators in the U.S. Virgin Islands.
- On 9/29 EPA Region 2 approved a request from Lilly del Caribe, Inc. for a 30-day extension of the 90-day limit on the accumulation of hazardous waste on-site. Such an extension is permitted under EPA's RCRA regulations where necessary "due to unforeseen, temporary, and uncontrollable circumstances." Lilly del Caribe informed EPA that because of impacts from the hurricanes, it is currently not possible to make hazardous waste shipments out of Puerto Rico.
- On 10/2 EPA HQ issued a No Action Assurance to Merck, Sharp & Dohme Corp. to enable the continued use of four emergency generators located at its Las Piedras, Puerto Rico facility. The NAA expires on October 31, 2017.
- On October 6, 2017 OECA, with Region 2 input, issued a CAA NAA to PREPA to provide the utility relief from certain permit conditions and permitting requirements, including emission limits, hours of operation limits, fuel usage restrictions, and restrictions on the shutdown or bypass of pollution control equipment for most of their electric generating units operating in Puerto Rico. The NAA will expire on Nov. 17. PREPA and EPA may meet to discuss remaining hurricane-affected compliance issues under the CAA and other statutes (including CWA, RCRA and EPCRA), and additional information gained in the intervening days.
- On October 2, EPA HQ received an inquiry from FEMA and the White House regarding the possibility of accepting a donation of water purification tablets from the UN World Food Programme for immediate distribution and use in Puerto Rico. As

these tablets are unregistered antimicrobial pesticides under FIFRA, OPP was asked to process a FIFRA § 18 emergency “crisis” exemption on an expedited basis. On October 4, Region 2 was asked to solicit the submission of a declaration of crisis and a request for the exemption from Puerto Rico. The tablets arrived in Puerto Rico on October 7, prior to the Governor’s office having had an opportunity to respond and before issuance of an exemption; FEMA took possession and agreed to hold them until such time as Puerto Rico submitted a request and an exemption issued. On October 8, the Secretary of the Puerto Rico Department of Health signed and submitted the crisis declaration and request for exemption. EPA concurred on the request “for use of NaDCC tablets to purify water in Puerto Rico under the 'crisis' provisions of FIFRA section 18” shortly thereafter. The crisis exemption is good for 15 days. No additional shipments are currently scheduled or planned.

## POSSIBLE UPCOMING LEGAL ACTIONS

- EPA has also received a number of hurricane-related *force majeure* claims from entities in Puerto Rico, including: a *force majeure* claim from PREPA regarding its compliance with certain requirements of a 1999 Clean Air Act consent decree; *force majeure* claims from PRASA, the P.R. Department of Transportation & Public Works and the P.R. Highway and Transportation Authority relating to those entities’ compliance with existing Clean Water Act consent decrees with EPA; *force majeure* claims from Puma Energy Caribe, LLC and Total Petroleum Puerto Rico Corp. concerning their compliance with RCRA consent decrees; and a *force majeure* letter from the U.S. Navy concerning its compliance with the Federal Facilities Agreement regarding Vieques (the Atlantic Fleet Weapons Training Area Site). We are evaluating the various *force majeure* claims and will take appropriate action. Similar *force majeure* claims will likely be submitted by other parties with whom we have entered into consent decrees or administrative orders in Puerto Rico, including the Municipality of San Juan and Municipality of Arecibo.
- In addition, EPA Region 2 and OECA are evaluating a letter from Americas Generators, Inc., which was forwarded to EPA by Senator Rubio. The letter asserts that the No Action Assurances that EPA issued on 9/27 regarding mobile power generators in Puerto Rico and the USVI are too limited and that there should be greater latitude to import and sell non-compliant generators in PR and VI during this emergency period. EPA has initiated discussions with the Puerto Rico government to seek the Commonwealth’s views on the issue, and we are also attempting to contact the USVI government.

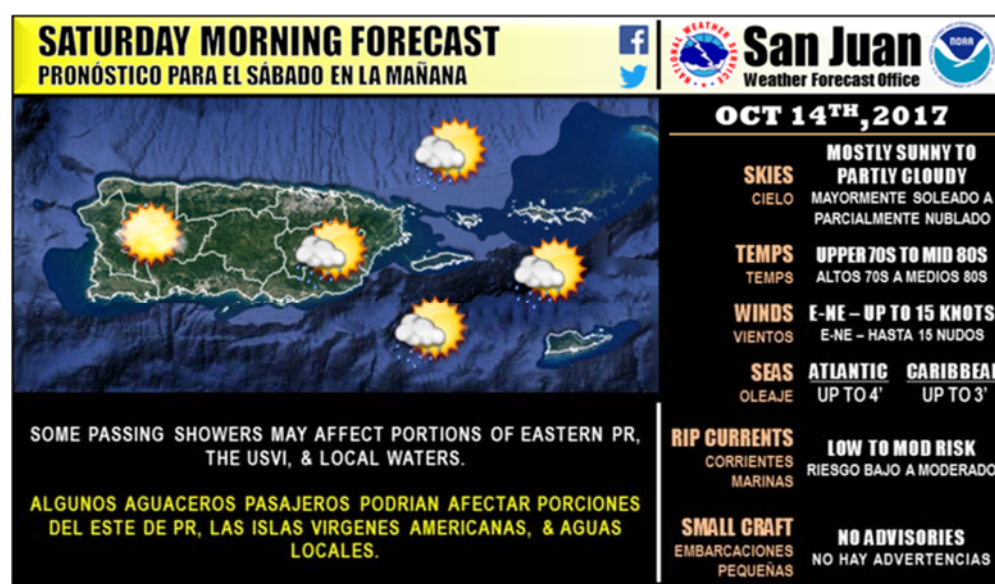
## ADDITIONAL THREATS TO THE U.S. CARIBBEAN.

### Current Weather.

- **Puerto Rico and the U.S. Virgin Islands.**
  - **Puerto Rico.** San Juan and Vicinity-Northeast-Southeast-Eastern Interior-North Central-Central Interior-Ponce and Vicinity-Northwest-Western Interior-

Mayaguez and Vicinity-Southwest-Culebra-Vieques-the nearshore and off shore Atlantic and Caribbean Coastal Waters. On 10/14, thunderstorms...there is a chance of thunderstorms with heavy rainfall and brief gusty winds mainly across the southwest quadrant of PR. Flooding...Heavy rains could lead to urban and small stream flooding across southwest PR.

10/15 through 10/20, Moisture and instability will be on the increase 10/15 and will remain high through 10/18 as a tropical wave along with abundant tropical moisture trailing the wave moves across the region. This will enhance shower and thunderstorm activity across the area each day. Seas and rip current risk will also be on the increase Sunday into Monday as the tropical wave moves across the forecast area.



- **U.S. Virgin Islands.** St. Thomas St. John adjacent Islands-St Croix- Nearshore Atlantic and adjacent Caribbean Coastal Waters-This Hazardous Weather Outlook is for the U.S. Virgin Islands and the adjacent coastal waters. On 10/14 through 10/18 thunderstorm coverage is expected to be lower 10/14, however, thunderstorms cannot be ruled out across the high terrain. Another tropical wave is forecast to move through the region beginning 10/15, enhancing the opportunities for more showers and thunderstorms.

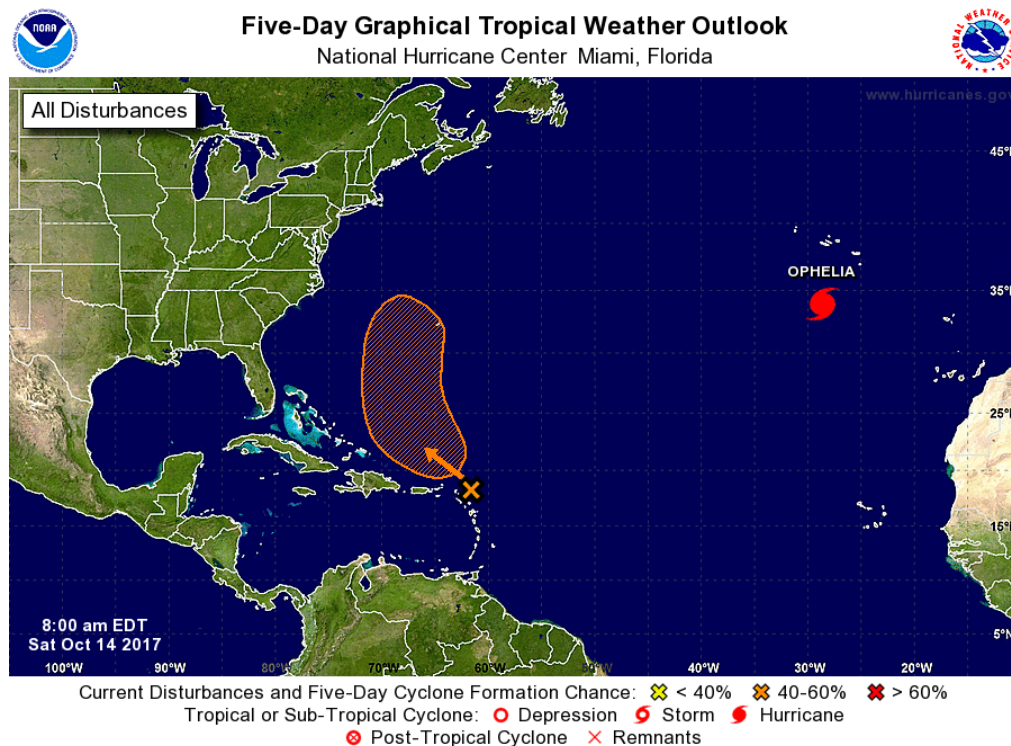
## FUTURE WEATHER OUTLOOK.

- **For the North Atlantic...Caribbean Sea and the Gulf of Mexico:** The National Hurricane Center is issuing advisories on Hurricane Ophelia, located over the eastern Atlantic Ocean several hundred miles south-southwest of the Azores. Radar and surface observations from the eastern Caribbean indicate that a broad area of low pressure is gradually approaching the Leeward Islands. This low is accompanied by showers and squalls mainly to the east of the center, and this activity is expected to spread westward over the Leeward Islands and the Virgin Islands 10/14 and 10/15. Upper-level winds



are expected to be unfavorable for development during the next couple of days, but the environment could turn favorable for some development early next week when the system begins to move northward and then recurves over the west-central Atlantic Ocean. Additional information on this system can be found in High Seas Forecasts issued by the National Weather Service.

- Formation chance through 48 hours...low...10 percent.
- Formation chance through 5 days...medium...40 percent.

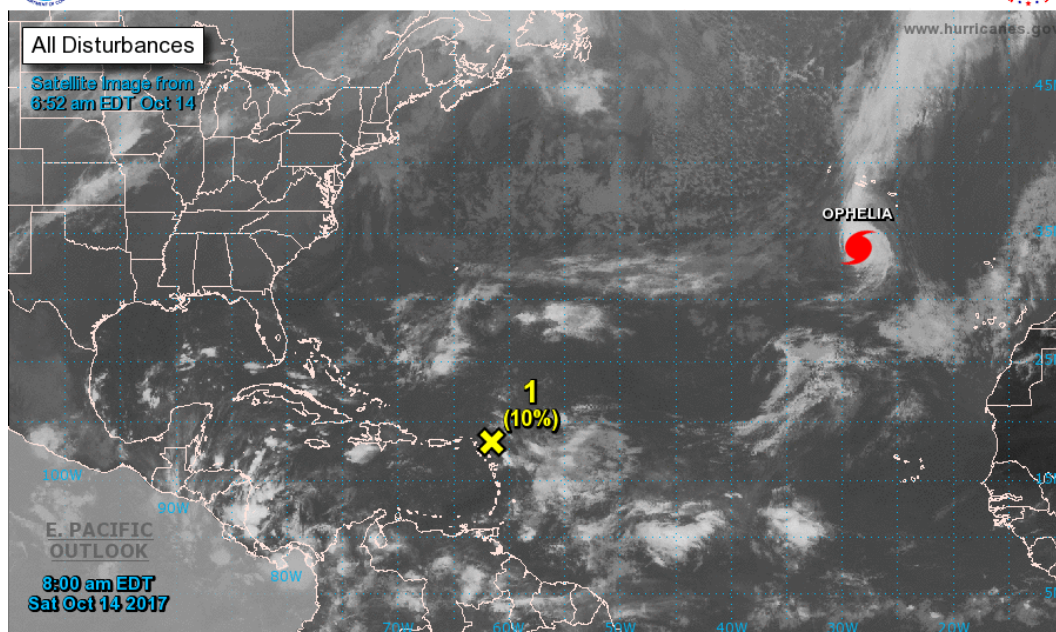






## Two-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Current Disturbances and Two-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants